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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/469,949	12/21/1999	SCOTT A. LOVINGOOD	2126	5585

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EXAMINER	
PIERCE, JEREMY R	

ART UNIT	PAPER NUMBER
1771	7

DATE MAILED: 05/13/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/469,949	LOVINGOOD, SCOTT A.	
	Examiner	Art Unit	
	Jeremy R. Pierce	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *03 April 2002* .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

4a) Of the above claim(s) *16-21* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1. The Amendment, submitted as Paper No. 6 on April 3, 2002, has been entered. Claim 1 has been amended. The 35 USC 102(b) rejection to claims 1, 5, 6, 11, and 12 as being anticipated by von der Eltz et al. has been withdrawn.

Election/Restrictions

2. Applicant's election of claims 1-15 in Paper No. 6 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claim Rejections - 35 USC § 102

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

4. Claims 1, 4, and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Gadoury (U.S. Patent No. 5,830,574) as set forth in section 6 of the last Office Action.

Gadoury teaches that synthetic melamine fiber and cellulose fiber can be woven together and dyed so that either the synthetic fiber or the cellulose fiber is dyed and the other remains undyed giving a chambray appearance (Abstract). In one embodiment

(column 6, lines 20-40), the synthetic melamine is dyed and the cellulose fiber remains undyed. As to claim 4, the fabric is woven into a plain weave (column 14, lines 65-66). As to claims 11-13, the examples disclosed in the patent use cotton that has a cotton count of 12 (column 14, lines 63-65).

Claim Rejections - 35 USC § 103

5. Claims 1, 3-7, and 11-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collier (U.S. Patent No. 5,487,936) in view of Gadoury.

Collier discloses a woven fabric where the warp threads have a different composition than the weft threads (Abstract). Either the warp or the weft is composed of at least one multi-filament yarn, and the other is optionally composed of spun fiber yarn (column 2, lines 31-44). The spun yarns are made of cotton (column 3, line 19) and the filament yarns are made of polyester, polyamide, polypropylene, etc. (column 3, lines 25-27). Thus, when the fabric is made with synthetic filaments in the warp direction, then cellulosic yarns are used in the weft direction. Both warp and weft yarns are homogeneous. The disclosure does not provide the use of blended yarns in either warp or weft direction. Collier teaches the woven fabric to be differentially dyed where the synthetic yarns are dyed one color and the cellulosic yarns are dyed another color (column 2, lines 55-60). Collier does not teach to leave the cellulosic yarns to remain undyed, but does point out that numerous dye routes can be used in the invention to create a wide variety of fabrics with varying visual effects (column 10, lines 15-18). Gadoury teaches a fabric consisting of synthetic yarns in either warp or weft and

cellulosic yarns in the other direction, where only the synthetic yarns are dyed and the cellulosic yarns remain undyed in order to give a chambray appearance. It would have been obvious to one skilled in the art to dye only the synthetic warp yarns of the fabric taught by Collier in order to create a fabric with a chambray appearance and to save on the amount of dye used, as taught by Gadoury. With regard to claim 3, Collier does not disclose a weight for the fabric. However, discovering an optimum weight value suitable for the intended use would only derive routine skill in the art. It would have been obvious to one skilled in the art to make the fabric taught by the combination of Collier and Gadoury weigh 4 to 8.5 ounces per square yard, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). With regard to claim 4, Collier discloses a 1x1 plain weave and a 2x2 twill weave (column 4, lines 11-17). With regard to claim 7, Collier does not disclose the denier of the polyester filaments to be between 150 and 300. It would have been obvious to one skilled in the art as a matter of design choice to increase the denier from 70 (column 5, line 48) to between 150 and 300 in order to create a heavier, more durable fabric, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. *In re Rose*, 105 USPQ 237 (CCPA 1955). Similar motivation applies to claims 13 and 14. Collier discloses the cotton count of the spun cotton fiber to be 40 (column 5, lines 46). It would have been obvious to one skilled in the art as a matter of design choice to decrease the cotton count from 40 to between 16 and 18 in order to create a heavier,

more durable fabric, since such a modification would have involved a mere change in the size of a component.

6. Claims 2 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collier in view of Gadoury and further in view of Goldthwait (U.S. Patent No. 2,404,837).

Collier and Gadoury do not teach the fabric material to exhibit a non-uniform stretch between 10 and 16% in the direction of the cellulosic fibers. Goldthwait teaches a fabric made of cotton with a degree of stretchability in either the warp of weft direction (column 1, lines 8-14). The stretch values in Table I (column 4, lines 42-53) fall within the claimed range. And the stretch would be non-uniform since the crimps formed in the cotton fibers appear to be random (Figure 2). It would have been obvious to one skilled in the art to make the cotton fibers in the weft direction exhibit a degree of stretchability in the fabric taught by the combination of Collier and Gadoury in order to create a fabric that can stretch and be better suited for use in clothing, as taught by Goldthwait.

7. Claims 8-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Collier in view of Gadoury and further in view of Tortora (Understanding Textiles, 4th Edition, pp. 265-269).

Collier and Gadoury do not teach using spun synthetic yarns in the fabric material. Tortora teaches open-end spun yarns are frequently used in denim products and offer a more uniform appearance (page 268, 2nd paragraph). It would have been obvious to one skilled in the art to prepare the synthetic polyester yarns from open-end spinning in order to create a more uniform fabric. With regard to claims 9 and 10, it

would have been obvious to one skilled in the art to create these fibers with a cotton count of between 24 and 36 in order to create a fabric with the desired strength and weight properties suitable for the intended use.

Response to Arguments

8. Applicant's arguments filed April 3, 2002 have been fully considered but they are not persuasive.

9. Applicant argues the Gadoury reference does not teach that the warp of the fabric homogeneous or that the filling is also homogeneous but of a different material than the warp. The claim does not cite the warp of the fabric as homogeneous or the filling of the fabric as homogeneous. It only cites the warp yarns comprise a homogeneous fiber and the weft yarns comprise a homogeneous fiber. While Gadoury does teach that the fibers can be made from blends (column 6, lines 35-38), it is also disclosed that the fiber types may be homogeneous (column 3, lines 15-16).

10. Applicant argues Gadoury teaches away from the claimed invention, by stating "it is not necessary to weave the fabric using one fiber type as a warp and the other as the weft (as with denim fabrics) to obtain this result." The Examiner interprets this differently than the Applicant. Gadoury is only offering an alternative to weaving the fabric using one fiber type as a warp and the other as the weft. Gadoury is not teaching away from doing so simply by saying it is not necessary to do so. In addition, a 102 rejection is based on anticipation, not obviousness. Even if Gadoury was teaching away, the anticipation rejection would still stand.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. U.S. Patent No. 2,312,089 to Gobeille and U.S. Patent No. 4,342,565 to Teague et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeremy R. Pierce whose telephone number is (703) 605-4243. The examiner can normally be reached on Monday-Thursday 7-4:30 and alternate Fridays 7-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (703) 308-2414. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Jeremy R. Pierce
Examiner
Art Unit 1771

May 7, 2002

ELIZABETH M. COLE
PRIMARY EXAMINER